

SOCIOCULTURAL THEORY AND THE TEACHING OF PROCESS WRITING: THE SCAFFOLDING OF LEARNING IN A UNIVERSITY CONTEXT

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Abstract

This paper considers how independent and interdependent learning can be fostered through a process approach to the teaching of writing. It does so by presenting the theoretical rationale which underlies a university academic skills programme. Drawing on reports of this programme which have been published elsewhere (e.g., Brine & Campbell, 2002), it is a case study illustrating how scaffolding can be effected by teachers and students. The paper begins by briefly reviewing three central concepts of sociocultural theory: the zone of proximal development, scaffolding, and appropriation. Attention is then turned to a consideration of writing as a collaborative process rather than as a product of solitary endeavour. Details are provided about a university course which applies sociocultural concepts to the adoption of a process approach to EAP writing. Attention is then given to the ways by which six principles of scaffolding (Van Lier, 1996) are applied throughout the course. Firstly, various forms of tutor scaffolding are outlined, and then a short sample of transcript data illustrates how students on this course can work collaboratively to co-construct texts and scaffold each other's learning. The paper concludes with a brief discussion of the broader pedagogical implications of sociocultural theory to the teaching of writing.

Key constructs in Sociocultural Theory

Most theories of, and research studies investigating, second language acquisition and learning are based on cognitive processes, usually in experimental conditions, and do not take the broader social context into account. By contrast, a sociocultural perspective, based on the pioneering work of L.S. Vygotsky (1896-1934), places the social context at the heart of the learning and communication process. Vygotsky posited that human learning cannot be understood independently from the social and cultural forces that influence individuals, and that sociocultural interactions are critical to learning. Individuals use physical, cultural and psychological tools to learn and to regulate their activity, and language - in Vygotsky's view, is the most important of these tools. Conceptual and cultural learning occurs through dialogue in what he called a Zone of Proximal Development (ZPD):

The distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky, 1978, p. 86).

Thus, learning is not merely conveyed, but mutually created by the participants in a structured dialogue in which the more capable partner promotes the learning of the less able by building,

and progressively dismantling, a scaffold within which the learner is enabled to progress from present to a higher level of ability. The ultimate aim is autonomy; as Vygotsky put it (1978, p. 87), what the learner can do today only with assistance, she will do independently tomorrow. He himself did not use the term, scaffolding – it originated in an article by Wood, Bruner and Ross (1976) and has since been very widely applied to the assistance needed in a ZPD. With specific regard to language learning, Leo Van Lier (1996) has formulated six principles of scaffolding:

- *Contextual support* - a safe but challenging environment: errors are expected and accepted as part of the learning process
- *Continuity* - repeated occurrences over time of a complex of actions, keeping a balance between routine and variation
- *Intersubjectivity* - mutual engagement and support: two minds thinking as one
- *Flow* – communication between participants is not forced, but flow in a natural way
- *Contingency* – the scaffolded assistance depends on learners' reactions: elements can be added, changed, deleted, repeated, etc
- *Handover* – the ZPD closes when learner is ready to undertake similar tasks without help (Van Lier, 1996, p. 196).

With effective scaffolding, understanding is co-constructed during the verbal dialogue of the ZPD. *Learning*, however, only occurs when this understanding is appropriated (Bakhtin, 1981) by the individual - when the meaning and use of the concept shifts from the external (social) plane to the internal (personal) plane. The individual processes that meaning by referring to his/her own underlying frame of reference. The conduit for this process of internalisation is usually referred to as private speech, which may occasionally be audible as the individual vocalises his or her mental processing. Once the concept is appropriated, it becomes the individual's personal understanding: it makes sense to him or her. Because it has been accommodated to the particular mental schemata, that understanding - and its connotative value to the individual - is invariably somewhat different from the co-constructed meaning reached on the surface. As the dialogue proceeds, differences of interpretation are made manifest and, perhaps, refined and reconciled dialectically in a continual process of mutual learning.

It is important to note that learning in a ZPD may be effectively scaffolded by either teachers or fellow learners, and strategies for both are implemented in the writing course discussed below

The constructs of the ZPD, scaffolding and appropriation can be applied to the teaching of writing as a process, to which attention will now be turned.

The teaching of writing as product and process

Traditionally, the teaching of writing has tended to focus on the production of texts by individual students, often under time constraints and usually in silence. However, over the past two decades it has increasingly come to be recognised that writing is a process of creating and extending meaning, rather than merely conveying pre-conceived information (Appleby, 2000; Bereiter and Scardamalia, 1987; Chenoweth and Hayes, 2001, 2003; Flower and Hayes, 1981; Hayes and Flower, 1987; Shaughnessy, 1977). These insights have been applied to second language instruction (Badger & White, 2000; Biber, Conrad, Reppen, Byrd

and Helt, 2002; Mesana, 2004; Pennington and So, 1993; Raimes, 1985, 1991, 2002; Sengupta, 2000; Silva, 1990, 1993; Zamel, 1987)). A process approach to teaching writing emphasises the development in learners of the recursive strategies and techniques that writers use when composing.

Most of the writers in this area, especially earlier ones such as Hayes and Flower, considered the process of writing to be an essentially cognitive one, but more recently there has been a tendency to consider a more sociocultural orientation. Recognising that learning and teaching are essentially social activities, sociocultural theorists (Cole & Engestrom, 1993; Lantolf, 2000; Van Lier, 2000) have drawn attention away from individual cognition and towards the sharing and distribution of mental activity among learners; as Pea (1993, p. 47) states “the mind rarely works alone” and writing, as a learning activity, is one that lends itself to the co-construction of texts by students working together.

Thus, collaborative problem-solving, brainstorming, shared planning, multiple drafts, peer feedback, revision, have all been suggested as relevant activities within a cycle of process writing (for example, by Keh, 1990; Seow, 2002; Tsui, 1996; Zamel, 1983). These authors have tended to focus on conventional classrooms, where teachers and learners interact in face-to-face settings. Increasingly, though, electronic technology is being applied to the teaching of writing, not least to promote strategic interaction and collaboration in the various stages in the process of writing. Reviewing a wide range of recent research investigating the relationship of technology to second language writing, Warschauer (Matsuda, Canagarajah, Harklau, Hyland & Warschauer, 2003, p.164) has pointed out that, “the diffusion of computers and the Internet is likely to be as important for the development of writing as was the earlier advent of the printing press”.

A university EAP writing course

A sociocultural perspective has for several years informed an undergraduate EAP (English for Academic Purposes) university programme at the University of Waikato. Various aspects of the programme have been elsewhere reported (for example, Brine, Franken and Campbell, 2002; Brine and Campbell, 2002; Brine, Johnson, Franken and Campbell, 2002a; 2002b; Campbell, 2005). No claims are made in the present paper for the excellence of the writing course; rather, it is presented here as a case study of how theoretical constructs can be applied in practice.

The programme comprises four courses: Academic Oral Presentation (Level 1) and Academic Oral Discourse (Level 2), and Academic Writing and Research (Level 1) and Academic Written Discourse (Level 2). Students who take these courses are from international (mostly Asian) backgrounds, and all are expected to have the equivalent of IELTS 6.0. The majority of students take one or more of the writing courses in the programme to facilitate their studies across the university. . Over the years, class sizes in the Academic Writing and Research course have sometimes exceeded 300 students, with tutorial groups usually comprising 25 or more. This is a far from satisfactory situation, but imposed budgetary constraints prevent the use of more tutors with smaller groups.

In the Level 1 EAP writing course, there are various learning ‘spaces’: two two-hour lectures a week; structured online interaction among and between students and tutors; one hour face-to-face tutorials; scheduled personal consultations hours; and informal networking among groups of students, either face to face or online. The lecture classes are taken up with instructional input

and associated tasks intended to consolidate the students' initial uptake of the conceptual content of the lecture. Between the lecture and the tutorial session each week, students are expected to use an in-house web conference. This platform provides information in the form of lecture notes, handouts, suggested library readings and instructions for such matters as the scheduling of postings and responses. More importantly, it is an effective conduit for interaction among students, and between teachers and students – in both cases on an individual or group basis.

Typically, students are put into groups of five to collaboratively complete various written assignments. They are expected to co-construct texts of varying length in a dialogic process through both face-to-face and online interaction. Such co-construction involves a variety of activities, for example: brainstorming ideas about the content and organisation of the topic; providing peer feedback on their work in progress; assisting each other in revising sequences of drafts, preparing versions for inter-group feedback; and eventually handing over a final, co-constructed text to the tutor. (It should be noted that, eventually, students are also expected to produce three individual writing assignments.) In early offerings of the course, students selected their own groups, and negotiated task accomplishment with relatively little specific assistance in this respect. This led to some disorganisation, dissatisfaction and complaints by some students of unequal contributions among group members. The decision about grouping students now follows suggestions by Oakley, Felder, Brent & Elhajj (2004, pp. 2-4), and in the present version of the course factors such as national backgrounds, degree majors, outside class interests, etc. are used in an attempt to collect students with similar interests and study fields to allow for more like-minded students to work together. They are also encouraged to divide the various tasks among themselves and are helped with this division of labour by the use of a Team Policy Statement (Oakley, et al., 2004, p. 5; p. 17). This model breaks down roles taken within groups and allows for students to initially choose a role that they feel they can accomplish. As the collaborative work progresses from one written task to the next, students have to assume different roles, so that each student in a group has a chance to practise the characteristics of the role. Students now sign a group work contract to show allotted tasks in the writing process, and this has worked well with more transparency being shown in the division of work.

Before the students actually start composing, they are given a pre-worked report to comment on. This has been designed and written by the tutor with features built in that correspond to typical mistakes made by students when writing the first composition assignment on this course. The idea behind this is that while critically reading the text and articulating comments among themselves, students are made aware of likely errors and how to correct them. This then forms a foundation for their own first composition assignment where they have to co-construct a similar report. The title changes, but the idea is that they learn from the mistakes they have identified and avoid making them. Each of the assignments prepares the way for their individual assignments, the first of which is a comparison/contrast assignment similar to the title of a previous group assignment. In this way, the skills of researching background reading and information, and the production of individual text-types for individual writing are developed through the work done in groups.

The entire cycle can be regarded as a ZPD: learners are taken from their present level of writing ability to achieve a higher potential level within a structured framework. Each phase of the process is also a ZPD, in which all the participants engage in dialogue to achieve set outcomes. Learning is scaffolded throughout the dialogue – by both the tutors and peers – the latter on the assumption that there are different levels of actual and potential development

within any group, and that in one respect or another some students are more ‘expert’ than their fellow learners (Van Lier, 1996, p. 195). The cultural tools of speech and writing (on paper and online) mediate the process. Appropriation occurs as a result of the merging of the co-construction of texts in social interaction and introspection (private speech in the drafting process). More precisely how this can be achieved will now be explained with reference to Van Lier’s six principles of scaffolding.

Scaffolding by the tutor in a university EAP writing class

The principle of contextual support

Although teaching and learning is essentially a social activity, writing is often regarded as a solitary chore involving high stress and low gain (Tsui, 1996, p. 101). Thus, when inducting students into writing as a process, the tutor needs to create a supportive but challenging environment, set the overall goal and direction, and clearly explain the rationale for such writing, demonstrating, by appropriate micro-tasks, some of the procedures used for collaborative work. This is done in the lecture classes at the start of each writing cycle, and the first tutorial sessions are aimed at stimulating student interest in the tasks in hand, encouraging and guiding collaboration, and preparing for the subsequent out-of-class and online interaction. Students who are unfamiliar with the web conferencing are given hands-on training. One of the first points that is emphasised is the need for audience-awareness; at all times students are made aware that what they write is intended to be read – not merely judged – by their group members, other students in the class, and the tutors. They are encouraged to think that the first (and last) readers are themselves, and therefore to be reflective about their own writing.

The principle of continuity

The tutor sets up a routine and schedule for the posting of assignments. For example, students are told to submit online postings by a set time and day, and they are also shown how to submit postings with comments, questions or points for further discussion. While these are addressed to, and answered by, the tutor all postings and responses can be read by other students in the class. The first tutorial of the series goes through the Team Policy Statements and students are helped to consider which roles to take for each assignment. As the students become familiar and comfortable within a routine, additional elements are added or amended; for example, after students have got used to providing feedback on work done by others, they are encouraged to construct a similar type of genre before another text type is introduced. The extent and type of feedback is varied according to the students’ developing skills and the increased range and difficulty of the target text genre.

The principle of intersubjectivity

The task may be to write a collaborative report on a topic relevant to the students’ academic work elsewhere in the university, and broad outlines are discussed in the lecture class. In the subsequent tutorial sessions, the conceptual content presented in the previous lecture is reinforced and extended, and the group members engage in exploratory talk (Mercer, 1995), building on each others’ ideas to work towards a common goal. Before they leave the tutorial, they are encouraged to agree on what is to be done in the next phase of the forthcoming group assignment. Individuals then draft and post their sections for within-group revisions (face to

face and/or online). The structure of the course thus obliges students to collaborate intersubjectively, and the tutor's responsibility is to create a harmonious atmosphere that facilitates the students, as far as possible, to be thinking along the same lines.

The principle of flow

It has to be said that this principle is, initially at least, flouted in this course. The requirement to submit postings and feedback to a tight schedule, and the fixed timetable of lectures and tutorials and the nature of academic assignments, militates against a natural flow of communication. However, opportunities are provided - and taken - for students to meet informally to discuss issues arising from their work in their own time. Moreover, the large number of online postings, in which students and tutor discuss content – at text, sentence and word levels - and negotiate procedural issues is clear evidence of natural flow in a free give-and-take written ‘conversation’. (This is illustrated in Section 5 below.)

The principle of contingency

The tutor scaffolds the students' learning by monitoring online postings and other written drafts in progress. The tutor responds and provides assistance, raising or lowering the scaffold, according to the needs of the students as indicated in their postings. Contingent scaffolding is also provided in the face-to-face tutorial sessions: to provide extra assistance and practice in the skills taught during lectures, to answer questions, suggest ideas for strategies, maintain focus and motivation, and deal with any problems that arise. In addition, each tutor has consultation hours two hours a week, during which individual students, or small groups, can discuss particular problems they face. In these ways, elements of the writing process can be added, deleted or adapted for individuals, groups, or the whole class according to their progression through the ZPD.

The principle of handover

The co-constructed drafts are edited and proofread by group members - again a division of labour is suggested in that different students focus on different issues. Once this has been done to their general satisfaction, they make final adjustments to the report and a final version is submitted online. The tutor provides online criteria-referenced feedback for group assignments with the use of Microsoft word features. Each assignment has a marking sheet, based on both lower-level concerns (punctuation, syntax, etc.) and higher-level (structural, organizational) aspects that the students have learnt. Students - individuals or groups - may make appointments to discuss their work. In most cases, the students have attained a higher level of writing proficiency and this ZPD is closed; a new one opens and another cycle of process writing can begin.

Peer scaffolding in the co-construction of a text

As Vygotsky (1878, p. 86) noted, and Van Lier (1996, pp. 190-194) has explained more fully, scaffolding can be effected by both teachers and peers. The following extract is taken from Brine, Campbell, Johnson and Franken (2002, Appendix A). The transcript illustrates how a group of students creatively and interdependently begin, on line, to co-construct a text. The

students had been assigned a joint writing task with the title, 'Explain the changes in population of New Zealand over the past ten years'. As Brine et al. (2002) explain, the entire discussion at this stage originally comprised almost 150 online exchanges. Before this extract begins each of the students had proposed his or her version of an introduction (an outcome of private speech) and they had decided by message 25 that the draft posted by student XS was the best. The transcript below of their subsequent negotiations for a co-constructed refinement of the introduction is followed by a commentary discussing how Van Lier's six principles of scaffolding can occur among students without the physical presence of a tutor.

27. FROM: YO
TO: XS – is it the introduction or the data you got from some book, please? – However, I wonder whether natural increase and immigration are the two main factors in the change of population in your draft. And the reasons for these two factors are in the preview, right?
28. FROM: XS
TO: YO – have u got my message? - #25 is the one u should look at, can u give me your opinion?
29. FROM: NP
TO: Everyone – i have look at the one XS did that is really good too, but do you have to put in the table figures
30. FROM: XS
TO: YO – the natural increase and migration (pay attention, here means not only immigration) caused the changes in the population. – all my resource is came from Demographic Trends, 2001, as i mentioned in the intro. – don't know if u give attention to the thesis statement and preview. have split those into two separated parts. – also add a feature in thesis statement, that's welfare and living condition, which is related to the natural increase. – my new preview is intended to talk about the changes of the different kinds of immigration, emigration and native people
31. FROM: YO
TO: XS – I've got what you meant now – so the thesis statement of #25 is the natural increase and immigration caused the changes, and in your preview, you listed the issues which presenting the reasons for the changes. Right??
32. FROM: XS
TO: NP – have to put the table in the intro, to explain what's going on these years
33. FROM: YN
TO: Everyone – think the sentence “for a migration country...” should change to “for NZ” instead. and the last sentence is just a repeating of the sentence before that...don't need that
34. FROM: XS
TO: YO – the title is “explain the changes” of nz... – it tells us that we should state what changes have happened in the article. – so, in my preview, which means the body paragraphs, state the 1. immigration, 2. emigration, 3. native people from those dimensions to state what's happened these years. u should know, talking in the background should not be repeat in the body, in other words, should not repeat those in the body
35. FROM: YO
TO: Everyone – I agree with XS's idea, since his introduction has come to the point with intense structure, but the thesis statement and preview are not quite clear
36. FROM: YN
TO: XS – why is it no figure shows in year 1991? Is it all right to do that?
37. FROM: YO

TO: XS – could you paste your #25 directly into the square, since I failed to open it in the computer i'm using now

38. FROM: XS

TO: Everyone – got YO's suggestion about my work, you mean there are not quite clear, how about get rid of the last sentence. – and the thesis statement also involves two factors i have talk about in background

Contextual support was initially provided by the title for the essay and by face-to-face discussion among students and tutor in the preceding lecture and tutorial session. Once on line, the students also provided another layer of contextual support by their selection, before this extract opens, of one version of the introduction to the essay as the basis for their ongoing co-construction of text. The challenge that lay ahead was to co-construct a more refined draft.

Continuity – the students in this extract are following a schedule for out-of-class collaboration to enable them to link with past and future face-to-face sessions. It can be seen (for example #27, 29, 31, 36) that they are developing ideas by commenting on, questioning, and seeking further clarification of their current online postings. In this way, over several such interactions, the complete text will eventually be co-constructed.

Intersubjectivity - the students here can be seen to be engaging in harmonious exploratory talk. For example, in #28, XS seeks YO's opinion. Later (#31), YO confirms his appropriation of the points XS has just made by reformulating a summary statement and seeking confirmation of his understanding. Later (#35), the same student indicates agreement but feels that there is a lack of clarity in XY's thesis statement and preview – exemplified (#36) by another student in the group - and responded to by XT in the final message in this extract. In this way, there is mutual engagement and support: each student is building on suggestions by others, working towards a common outcome – the creation not only of text but of understanding.

Flow – the style of writing in the extract indicates that the interaction – although asynchronous – is characteristic of easy conversation; for example, the informality of 'texting' usage such as 'u', the lower case 'i', casual punctuation and reduced sentences such as 'Right' (#31) and 'don't need that' (#33). The amount of task-related written communication thus engendered is considerable – in the case of student XS, who writes most in this short extract, this amounts to about 250 words, and of course considerably more over the 150 posted messages in the episode. Such writing is monitored, but not assessed, by the tutor who thus gains valuable formative insights into the development of the students' skills in the process of writing.

Contingency – in the flow of interaction, the help that each student seeks and provides is contingent upon what has been posted in previous messages: elements are changed, added, or deleted. For example, it may be assumed that, perhaps because his text was selected as the basis, XS took the role of the more capable peer in this extract. He responded very fully (#30) to YO's initial request for clarification and later (#32) more briefly, but appropriately, to NP's simple question (#29). The participants' differing ways of comprehending, thinking and interpretation - their levels of appropriation - are brought to the surface of discourse, and through contingent interaction are reconstructed, refined, or reconciled as part of the process of mutual learning.

Handover – at the end of the hundred or so messages following this extract, the students reached agreement on what they had done, and also what next needed to be done - and by whom - before the next scheduled interaction. The students have thus achieved a measure of control over the process of writing through interdependent activity, and this in itself represents a waystage handover – the closure of a ZPD - before the final submission to the tutor. It may be assumed, although not proved, that the autonomy of individual students might be enhanced as a result of this interdependence.

Summary: sociocultural theory and the teaching of process writing

In a Zone of Proximal Development, understanding is shared and *created* (Mercer, 1995) – and not merely transmitted - in the interaction within and between the co-participants of an activity. This process is mediated both by the available cultural tools, such as pen and paper and electronic media, and by the cultural practices of the group – for example, the extent to which they are accustomed to work with each other and with an appropriate division of labour.

The learning of an individual in a ZPD depends as much on the nature and quality of the dialogic intersubjectivity as on the potential limit of personal capability within the demands of the task. Thus, collaborative learning needs willingness on the part of all participants to learn with and from each other. The primary role of the tutor, as an expert or more capable partner in the ZPD, is to directly or indirectly scaffold this collaborative learning. This is done by providing appropriate resources, both material and conceptual, and by creating and sustaining motivation in a psycho-socially safe, but challenging, environment in which students can subsequently scaffold each other's efforts in the creation of multivocal texts. Typically, students in the Waikato programme are unaccustomed to a collaborative style of working, but it can be a positive experience, as indicated by these comments of students reported by Brine et al (2004):

Student A: Write comment for other people's work is an interesting strange activity to me. The comment report in this course is different to any comments I did before.

Student B: I have never made comments about other's work before, but you give us a good chance to make comments to other group.? I really like it?. To make comments is very interesting (Brine, Franken & Johnson 2004, p.95).

It should be noted that students' reactions to collaborative learning and the co-construction of texts, both initial and longer-term, vary considerably; some readily adapt while others are more defensive.

Written texts are usually read 'univocally' by an individual in an attempt to reconstruct the author's original intended meaning. This understanding can subsequently be conveyed to another. However, the process of *writing* a text 'dialogically' can be more productive: learners use the emerging text as a 'thinking device' to *appropriate* understanding – that is, they integrate the meaning derived from the dialogue - mediated by the text as it is being co-constructed - into their own frame of reference. Private speech is the channel conducting this understanding from the social to the inner plane – and, equally importantly – in the other direction. It is the mechanism by which the individual converts his inner thoughts into words and longer stretches of speech in preparation for utterance on the social plane. Because individuals appropriate - and then reconceptualise - meaning in different ways, new ways of thinking invariably emerge in the dialogue. In an attempt to co-construct a well organized, coherent text, students are constantly using speech or writing to explore the different possibilities and avenues.

Conclusion

It may be widely accepted in principle that writing should be taught as a process, rather than as a product. In practice, however, the traditional approach is more often widely adopted. To some extent, this may be due to a lack of knowledge among teachers about the value of a process approach, and also a lack of belief in its practicability; by its nature, process writing is time-consuming, especially when it is done collaboratively. To these points may be added the not unreasonable assumption that many students – and especially perhaps those from Asian backgrounds – are unfamiliar with, and unwilling to try, non-traditional approaches, and may wish to get their own piece of writing done as quickly as possible. Such resistance is likely to be compounded when teachers face large classes.

The situation presented in this paper indicates that a measure of successful process writing can be achieved in a relatively short extensive EAP course (five hours of instruction over twelve weeks) with very large classes. It can reasonably be argued that the larger the class, the more need there is to provide opportunities for students to collaborate in groups; instead of a hundred individual activities to monitor, there might be twenty or even ten working units; in this way, in-class and online scaffolding by the teacher can occur more effectively than if help were distributed among individuals. There is also a considerable reduction in the eventual number of finished written assignments to read and provide feedback for – although it has to be admitted that there is a considerable amount of online tutoring required during the course. More important than these practical concerns, however, is that working in groups obliges students to work interdependently as a waystage for independence. They come to rely their collective, and co-constructed, knowledge and understanding – as much as, if not more than, instruction by the teacher.

In the EAP class under consideration, use was made of web conferencing facilities and strategies to mediate the learning process. It allowed the creation of structured learning spaces outside the physical limitations of lecture hall and tutorial room, and to enhance the intersubjective process of co-constructing both understanding and texts. Increasingly, students have chosen their own times to meet outside the lecture- and tutorial schedule, and they use Microsoft Messenger (MSM) well as, and sometimes more than, the established web conference. (One disadvantage of this from a research point of view is that there is less available evidence of co-construction actually in process. However, the use of role menus and group work contracts allows for the identification of individual contributions.) Electronic technology is a valuable teaching and learning tool – and one that need not be expensive; there are free web conference facilities available online, for example, <http://www.worldcrossing.com/>. These may not be as sophisticated as the platform used in this EAP programme, but most of them are more than adequate to support collaborative writing projects.

It needs to be emphasised, however, that all educational technology needs to be firmly underpinned by relevant pedagogic theory; in our case, we have found a sociocultural perspective to be extremely relevant, but of course other theoretical models can also be helpful to explain key aspects of learning and teaching. One implication of this is that teachers need to be provided with an appropriate theoretical foundation – as well as technical expertise – both before embarking on, and implementing, an innovative approach to teaching writing (or anything else, for that matter). Like their students, they are in a zone of proximal development and they too need scaffolding if they are to fully appropriate the meaning and value of this teaching and learning experience. In short, autonomy cannot be thrust upon either students or teachers: they need to be supported towards independence.

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